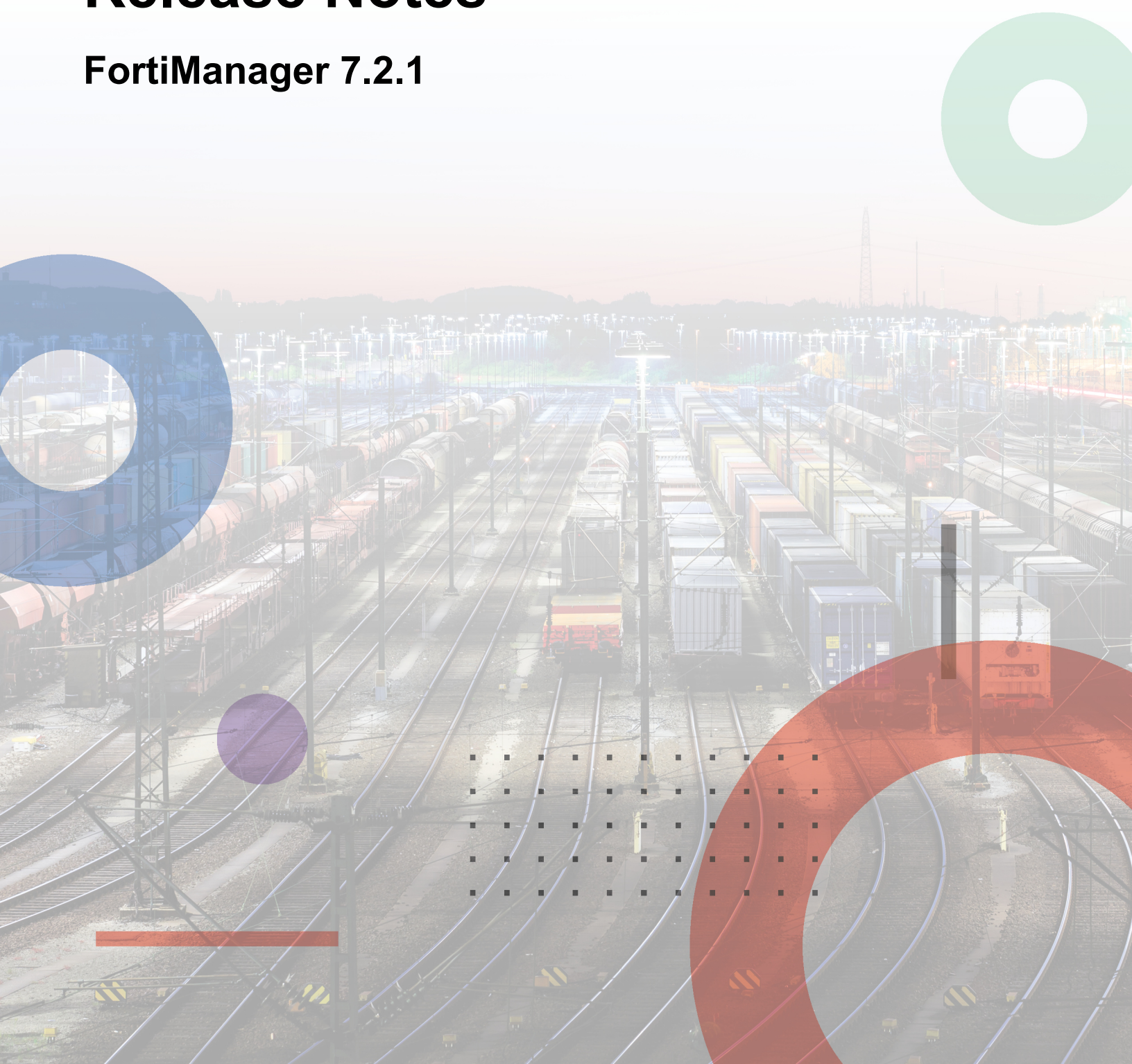
FORTINET

Release Notes

FortiManager 7.2.1



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December 2nd, 2022
FortiManager 7.2.1 Release Notes
02-721-806200-20221202

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Change Log

Date	Change Description
2022-08-09	Initial release.
2022-08-09	Updated Known Issues on page 52.
2022-08-11	Updated Special Notices on page 10.
2022-08-23	Updated Special Notices on page 10.
2022-08-26	Updated Upgrade Information on page 17.
2022-08-29	Updated Special Notices on page 10.
2022-09-07	Added 839168 to Known Issues on page 52 and added special notice to Special Notices on page 10.
2022-09-08	Added a second workaround to Special Notices on page 10.
2022-09-30	Updated FortiOS and FortiOS Carrier on page 21.
2022-10-20	Added 841187 to Known Issues on page 52 and added FortiManager 7.2.1 and FortiOS 7.0.8 compatibility issues on page 39.
2022-10-27	Updated FortiProxy on page 23.
2022-11-02	Updated Resolved Issues on page 42.
2022-11-03	Updated FortiGate models on page 26.
2022-11-10	Updated FortiOS and FortiOS Carrier on page 21.
2022-11-16	Updated FortiSandbox on page 23.
2022-11-17	Updated Known Issues on page 52.
2022-11-21	Updated Known Issues on page 52.
2022-11-30	Updated Appendix A - FortiGuard Distribution Servers (FDS) on page 54

FortiManager 7.2.1 Release

This document provides information about FortiManager version 7.2.1 build 1215.

The recommended minimum screen resolution for the FortiManager GUI is 1920 x 1080. Please adjust the screen resolution accordingly. Otherwise, the GUI may not display properly.

This section includes the following topics:

Supported models

FortiManager version 7.2.1 supports the following models:

FortiManager	FMG-200F, FMG-200G, FMG-300F, FMG-400E, FMG-400G, FMG-1000F, FMG-2000E FMG-3000F, FMG-3000G, FMG-3700F, and FMG-3700G.
FortiManager VM	FMG_DOCKER, FMG_VM64, FMG_VM64_ALI, FMG_VM64_AWS, FMG_VM64_AWSOnDemand, FMG_VM64_Azure, FMG_VM64_GCP, FMG_VM64_IBM, FMG_VM64_HV (including Hyper-V 2016, 2019), FMG_VM64_KVM, FMG_VM64_OPC, FMG_VM64_XEN (for both Citrix and Open Source Xen).

FortiManager VM subscription license

The FortiManager VM subscription license supports FortiManager version 6.4.1 and later. For information about supported firmware, see FortiManager VM firmware on page 18.

See also Appendix B - Default and maximum number of ADOMs supported on page 55.

Management extension applications

The following section describes supported models and minimum system requirements for management extension applications (MEA) in FortiManager7.2.1.

FortiManager uses port TCP/443 or TCP/4443 to connect to the Fortinet registry and download MEAs. Ensure that the port is also open on any upstream FortiGates. For more information about incoming and outgoing ports, see the FortiManager 7.0 Ports Guide.

Supported models for MEA

You can use any of the following FortiManager models as a host for management extension applications:

FortiManager	FMG-3000F, FMG-3000G, FMG-3700F, and FMG-3700G.
FortiManager VM	FMG_DOCKER, FMG_VM64, FMG_VM64_ALI, FMG_VM64_AWS, FMG_VM64_AWSOnDemand, FMG_VM64_Azure, FMG_VM64_GCP, FMG_VM64_IBM, FMG_VM64_HV (including Hyper-V 2016, 2019), FMG_VM64_KVM, FMG_VM64_OPC, FMG_VM64_XEN (for both Citrix and Open Source Xen).

Minimum system requirements

By default FortiManager VMs use the following system resource settings:

- 4 vCPU
- 8 GB RAM
- 500 GB disk space

Starting with FortiManager 7.0.0, RAM and CPU is capped at 50% for MEAs. (Use the `config system docker` command to view the setting.) If FortiManager has 8 CPUs and 16 GB RAM, then only 4 CPUs and 8 GB RAM are available to MEAs by default, and the 4 CPUs and 8 GB RAM are used for all enabled MEAs.

Some management extension applications have minimum system requirements that require you to increase system resources. The following table identifies the minimum requirements for each MEA as well as the recommended system resources to function well in a production environment.

MEA minimum system requirements apply only to the individual MEA and do not take into consideration any system requirements for resource-sensitive FortiManager features or multiple, enabled MEAs. If you are using multiple MEAs, you must increase the system resources to meet the cumulative need of each MEA.

Management Extension Application	Minimum system requirements	Recommended system resources for production*
FortiAIOps	• 8 vCPU • 32 GB RAM • 500 GB disk storage	No change
FortiSigConverter	• 4 vCPU • 8 GB RAM	No change
FortiSOAR	• 4 vCPU • 8 GB RAM • 500 GB disk storage	• 16 vCPU • 64 GB RAM • No change for disk storage

Management Extension Application	Minimum system requirements	Recommended system resources for production*
Policy Analyzer	• 4 vCPU • 8 GB RAM	No change
Universal Connector	• 1 GHZ vCPU • 2 GB RAM • 1 GB disk storage	No change
Wireless Manager (FortiWLM)	• 4 vCPU • 8 GB RAM	No change

*The numbers in the *Recommended system resources for production* column are a combination of the default system resource settings for FortiManager plus the minimum system requirements for the MEA.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in 7.2.1.

FMG-VM acquires incorrect certificate after upgrade

FortiManager virtual machines with an older perpetual license only use one certificate. After upgrading FMG-VMs with a perpetual license to FortiManager 7.2.1, a second, default certificate with a serial number (in the CLI) or common name (in the GUI) of *FAZ-VM0000000001* is automatically added to the FMG-VM, and FortiManager attempts to use the default certificate with the incorrect value for FGFM tunnels with managed FortiGates.

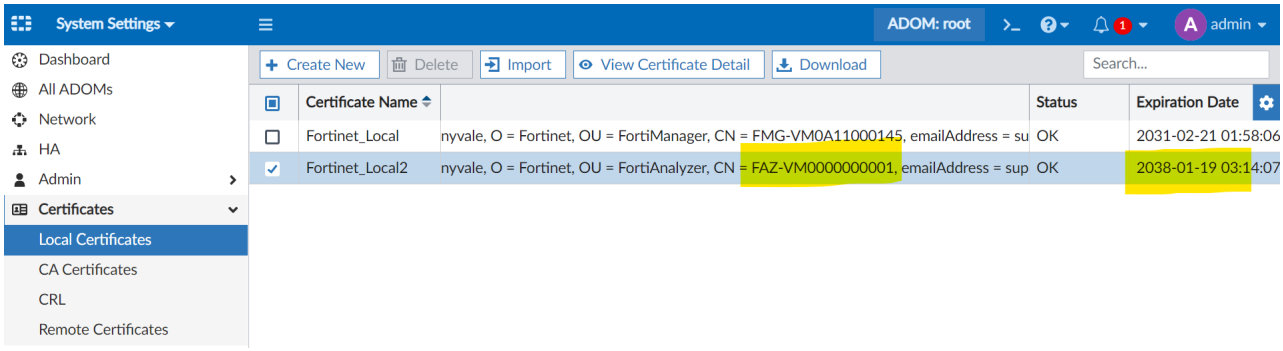
This issue does not affect FMG-VMs with a subscription license and FMG-VMs with a newer perpetual that uses two certificates.

You can use either of the following workarounds:

1. Use the CLI to configure the FGFM tunnel to use the certificate with the correct serial number or CN value.
2. Go to FortiCloud, download the license file again, which includes two local certificates, and apply the license to FortiManager. The new local certificates automatically overwrite the existing local certificates.

Workaround 1:

1. Go to *System Settings* > *Certificates* > *Local Certificates*, and check the *CN* (common name) field for the local certificates.
   In the following example, the incorrect *SN* value of *FAZ-VM0000000001* is displayed:



2. Configure the FGFM tunnel to use the default certificate with the correct serial number or CN value:
   In this example, the *Fortinet_Local* certificate has the correct value:

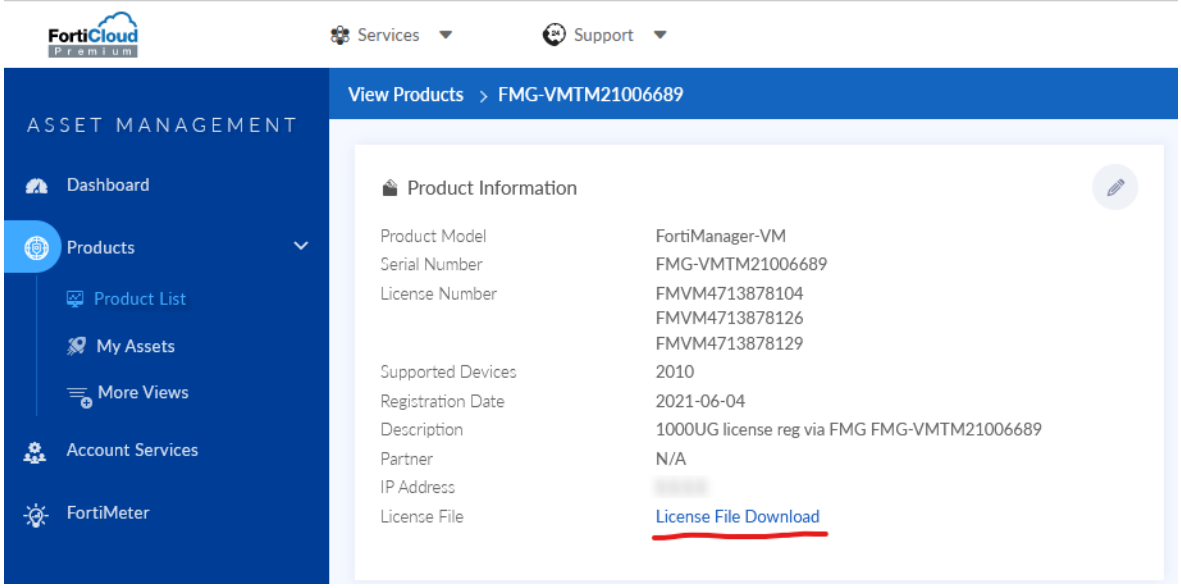
```
config system global
   set fgfm-local-cert "Fortinet_Local"
```

3. If the FMG-VMs are in an HA cluster, configure the cluster to use the default certificate with the correct serial number or CN value:
   In this example, the *Fortinet_Local* certificate has the correct value:

```
config system ha
   set local-cert Fortinet_Local
```

Workaround 2:

1. In FortiCloud (https://support.fortinet.com/), go to *Products* > *Product List*, and click the FMG-VM product. The product details are displayed.



2. Click *License File Download* to download the license file with two default certificates.
3. In FortiManager, go to *System Settings* > *Dashboard* > *License Information*, and click the *Upload License* button to upload the license and the two local certificates.
   The new local certificates automatically overwrite the existing local certificates.

SD-WAN Orchestrator removed in 7.2

Starting in 7.2.0, the SD-WAN Orchestrator is no longer available in FortiManager. Instead, you can use the *SD-WAN Overlay Template* wizard to configure your SD-WAN overlay network.

For more information, see SD-WAN Overlay Templates in the FortiManager Administration Guide.

Changes to FortiManager meta fields

Beginning in 7.2.0, FortiManager supports policy object metadata variables.

When upgrading from FortiManager 7.0 to 7.2.0 and later, FortiManager will automatically create ADOM-level metadata variable policy objects for meta fields previously configured in System Settings that have per-device mapping configurations detected. Objects using the meta field, for example CLI templates, are automatically updated to use the new metadata variable policy objects.

Meta fields in *System Settings* can continue to be used as comments/tags for configurations.

For more information, see ADOM-level meta variables for general use in scripts, templates, and model devices.

Setup wizard requires FortiCare registration

Starting in FortiManager 7.2.1, the FortiManager Setup wizard requires you to complete the *Register with FortiCare* step before you can access the FortiManager appliance or VM. Previously the step was optional.

For FortiManager units operating in a closed environment, contact customer service to receive an entitlement file, and then load the entitlement file to FortiManager by using the CLI.

Access lists as ADOM-level objects

Starting in 7.2.0, FortiManager supports IPv4 and IPv6 access lists as ADOM-level object configurations from FortiGate. Previously, access lists were controlled by the device database/FortiGate configuration.

After upgrading to 7.2.0 from an earlier release, the next time you install changes to a FortiGate device with an IPv4 or IPv6 access list, FortiManager will purge the device database/FortiGate configuration which may have previously contained the access list. To address this, administrators can re-import the FortiGate policy configuration to an ADOM's policy package or re-create the IPv4/IPv6 access list in the original package.

View Mode is disabled in policies when policy blocks are used

When policy blocks are added to a policy package, the *View Mode* option is no longer available, and policies in the table cannot be arranged by *Interface Pair View*. This occurs because policy blocks typically contain policies with multiple interfaces, however, *View Mode* is still disabled even when policy blocks respect the interface pair.

Reconfiguring Virtual Wire Pairs (VWP)

A conflict can occur between the ADOM database and device database when a Virtual Wire Pair (VWP) is installed on a managed FortiGate that already has a configured VWP in the device database. This can happen when an existing VWP has been reconfigured or replaced.

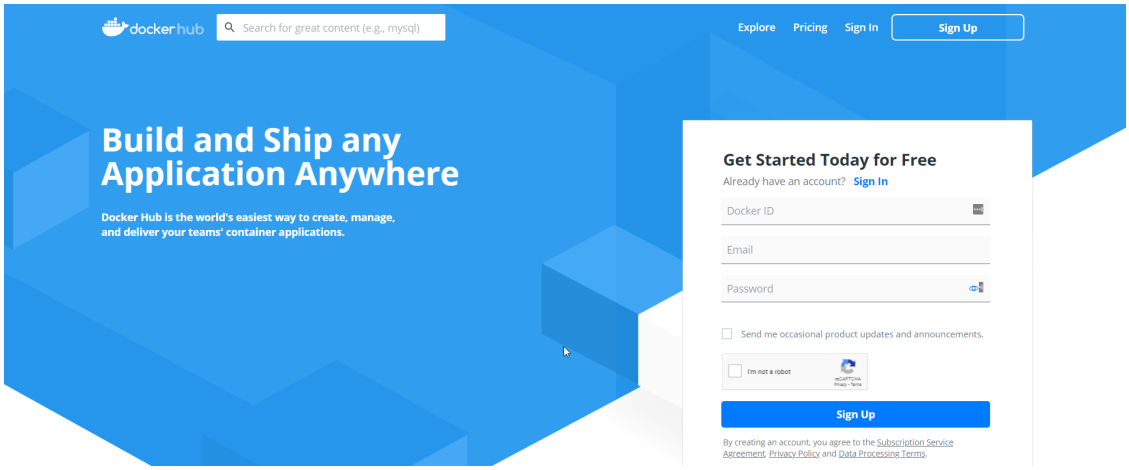
Before installing the VWP, you must first remove the old VWP from the device's database, otherwise a policy and object validation error may occur during installation. You can remove the VWP from the device database by going to *Device Manager* > *Device & Groups*, selecting the managed device, and removing the VWP from *System* > *Interface*.

Fortinet verified publisher docker image

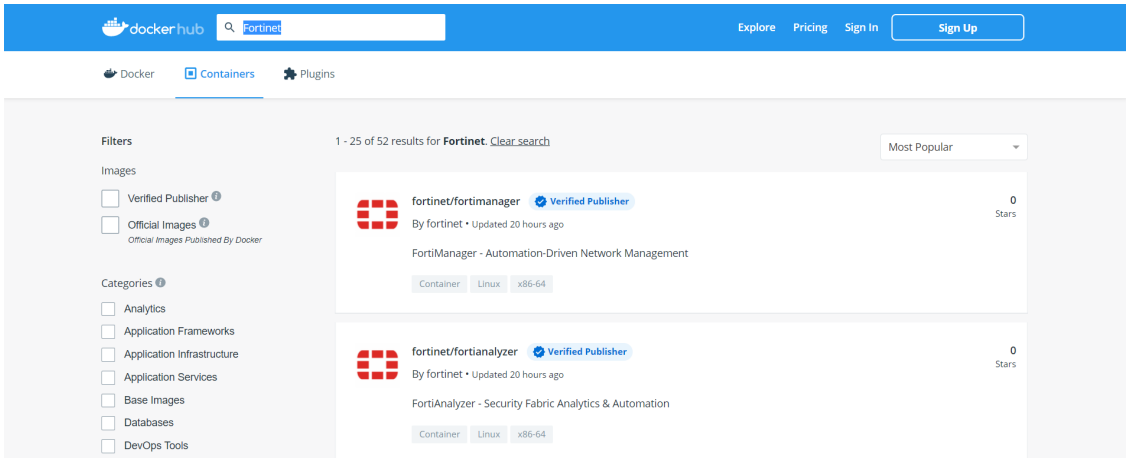
FortiManager 7.0.1 docker image is available for download from Fortinet's Verified Publisher public repository on dockerhub.

To download the FortiManager image from dockerhub:

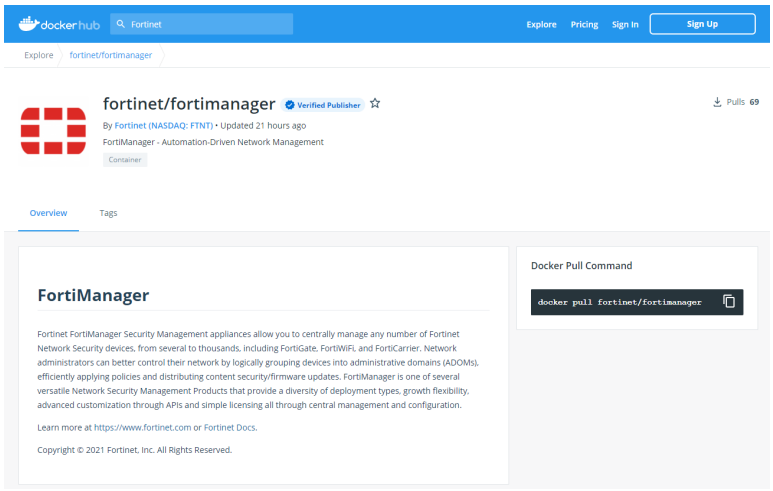
1. Go to dockerhub at https://hub.docker.com/.
   The dockerhub home page is displayed.



2. In the banner, click *Explore*.
3. In the search box, type *Fortinet*, and press *Enter*.
   The *fortinet/fortimanager* and *fortinet/fortianalyzer* options are displayed.



4. Click *fortinet/fortimanager*.
   The *fortinet/fortimanager* page is displayed, and two tabs are available: *Overview* and *Tags*. The *Overview* tab is selected by default.



5. On the *Overview* tab, copy the docker pull command, and use it to download the image.
   The CLI command from the *Overview* tab points to the latest available image. Use the *Tags* tab to access different versions when available.

Scheduling firmware upgrades for managed devices

Starting in FortiManager 7.0.0, firmware templates should be used to schedule firmware upgrades on managed FortiGates. Attempting firmware upgrade from the FortiManager GUI by using legacy methods may ignore the *schedule upgrade* option and result in FortiGates being upgraded immediately.

Modifying the interface status with the CLI

Starting in version 7.0.1, the CLI to modify the interface status has been changed from `up`/`down` to `enable`/`disable`.

For example:

```
config system interface
   edit port2
      set status <enable/disable>
   next
end
```

SD-WAN with upgrade to 7.0

Due to design change with SD-WAN Template, upgrading to FortiManager 7.0 may be unable to maintain dynamic mappings for all SD-WAN interface members. Please reconfigure all the missing interface mappings after upgrade.

Citrix XenServer default limits and upgrade

Citrix XenServer limits ramdisk to 128M by default. However the FMG-VM64-XEN image is larger than 128M. Before updating to FortiManager 6.4, increase the size of the ramdisk setting on Citrix XenServer.

To increase the size of the ramdisk setting:

1. On Citrix XenServer, run the following command:
   ```
   xenstore-write /mh/limits/pv-ramdisk-max-size 536,870,912
   ```
2. Confirm the setting is in effect by running `xenstore-ls`.
   ```
   ----------------------
   limits = ""
   pv-kernel-max-size = "33554432"
   pv-ramdisk-max-size = "536,870,912"
   boot-time = ""
   ---------------------------
   ```
3. Remove the pending files left in `/run/xen/pygrub`.

The ramdisk setting returns to the default value after rebooting.

Multi-step firmware upgrades

Prior to using the FortiManager to push a multi-step firmware upgrade, confirm the upgrade path matches the path outlined on our support site. To confirm the path, please run:

```
dia fwmanager show-dev-upgrade-path <device name> <target firmware>
```

Alternatively, you can push one firmware step at a time.

Hyper-V FortiManager-VM running on an AMD CPU

A Hyper-V FMG-VM running on a PC with an AMD CPU may experience a kernel panic. Fortinet recommends running VMs on an Intel-based PC.

SSLv3 on FortiManager-VM64-AWS

Due to known vulnerabilities in the SSLv3 protocol, FortiManager-VM64-AWS only enables TLSv1 by default. All other models enable both TLSv1 and SSLv3. If you wish to disable SSLv3 support, please run:

```
config system global
set ssl-protocol t1sv1
```

```
    end
```

Upgrade Information

Prior to upgrading your FortiManager, please review the FortiManager Upgrade Guide in detail as it includes all of the necessary steps and associated details required to upgrade your FortiManager device or VM.

See FortiManager 7.2.1 Upgrade Guide.

You can upgrade FortiManager 7.0.1 or later directly to 7.2.1.

Before upgrading FortiManager, check ADOM versions. Check the ADOM versions supported by the destination firmware and the current firmware. If the current firmware uses ADOM versions not supported by the destination firmware, upgrade ADOM versions in FortiManager before upgrading FortiManager to the destination firmware version.

For example, FortiManager 7.0 supports ADOM versions 6.2, 6.4, and 7.0, but FortiManager 7.2 supports ADOM versions 6.4, 7.0, and 7.2. Before you upgrade FortiManager 7.0 to 7.2, ensure that all ADOM 6.2 versions have been upgraded to ADOM version 6.4 or later. See FortiManager 7.2.1 Upgrade Guide.

This section contains the following topics:

Downgrading to previous firmware versions

FortiManager does not provide a full downgrade path. You can downgrade to a previous firmware release by using the GUI or CLI, but doing so results in configuration loss. A system reset is required after the firmware downgrade process has completed. To reset the system, use the following CLI commands via a console port connection:

```
execute reset {all-settings | all-except-ip}
execute format {disk | disk-ext4 | disk-ext3}
```

Firmware image checksums

The MD5 checksums for all Fortinet software and firmware releases are available at the Customer Service & Support portal, https://support.fortinet.com. After logging in, go to *Download* > *Firmware Image Checksums*, enter the image file name including the extension, and select *Get Checksum Code*.

FortiManager VM firmware

Fortinet provides FortiManager VM firmware images for Amazon AWS, Amazon AWSOnDemand, Citrix and Open Source XenServer, Linux KVM, Microsoft Hyper-V Server, and VMware ESX/ESXi virtualization environments.

Amazon Web Services

- The 64-bit Amazon Machine Image (AMI) is available on the AWS marketplace.

Citrix XenServer and Open Source XenServer

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.OpenXen.zip`: Download the 64-bit package for a new FortiManager VM installation. This package contains the QCOW2 file for the Open Source Xen Server.
- `.out.CitrixXen.zip`: Download the 64-bit package for a new FortiManager VM installation. This package contains the Citrix XenServer Virtual Appliance (XVA), Virtual Hard Disk (VHD), and OVF files.

Google Cloud Platform

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.gcp.zip`: Download the 64-bit package for a new FortiManager VM installation.

Linux KVM

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.kvm.zip`: Download the 64-bit package for a new FortiManager VM installation. This package contains QCOW2 that can be used by qemu.

Microsoft Azure

The files for Microsoft Azure have AZURE in the filenames, for example `<product>_VM64_AZURE-v<number>-build<number>-FORTINET.out.hyperv.zip`.

- `.out`: Download the firmware image to upgrade your existing FortiManager VM installation.

Microsoft Hyper-V Server

The files for Microsoft Hyper-V Server have HV in the filenames, for example, `<product>_VM64_HV-v<number>-build<number>-FORTINET.out.hyperv.zip`.

- `.out`: Download the firmware image to upgrade your existing FortiManager VM installation.
- `.hyperv.zip`: Download the package for a new FortiManager VM installation. This package contains a Virtual Hard Disk (VHD) file for Microsoft Hyper-V Server.

Microsoft Hyper-V 2016 is supported.

Oracle Private Cloud

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.opc.zip`: Download the 64-bit package for a new FortiManager VM installation.

VMware ESX/ESXi

- `.out`: Download the 64-bit firmware image to upgrade your existing VM installation.
- `.ovf.zip`: Download either the 64-bit package for a new VM installation. This package contains an Open Virtualization Format (OVF) file for VMware and two Virtual Machine Disk Format (VMDK) files used by the OVF file during deployment.

For more information see the FortiManager Data Sheet available on the Fortinet web site. VM installation guides are available in the Fortinet Document Library.

SNMP MIB files

You can download the *FORTINET-FORTIMANAGER-FORTIANALYZER.mib* MIB file in the firmware image file folder. The Fortinet Core MIB file is located in the main FortiManager version 5.00 file folder.

Product Integration and Support

This section lists FortiManager 7.2.1 support of other Fortinet products. It also identifies what FortiManager features are supported for managed platforms and what languages FortiManager supports. It also lists which Fortinet models can be managed by FortiManager.

The section contains the following topics:

Supported software

FortiManager 7.2.1 supports the following software:

To confirm that a device model or firmware version is supported by the current firmware version running on FortiManager, run the following CLI command:

```
diagnose dvm supported-platforms list
```

Always review the Release Notes of the supported platform firmware version before upgrading your device.

Web browsers

FortiManager 7.2.1 supports the following web browsers:

- Microsoft Edge 80 (80.0.361 or later)
- Mozilla Firefox version 96
- Google Chrome version 97

Other web browsers may function correctly, but are not supported by Fortinet.

FortiOS and FortiOS Carrier

The *FortiManager Release Notes* communicate support for FortiOS versions that are available at the time of the FortiManager 7.2.1 release. For additional information about other supported FortiOS versions, please refer to the FortiManager compatibility chart in the Fortinet Document Library.

See FortiManager compatibility with FortiOS.

FortiManager 7.2.1 supports the following versions of FortiOS and FortiOS Carrier:

- 7.2.0 to 7.2.3
- 7.0.0 to 7.0.8
- 6.4.0 to 6.4.10

FortiADC

FortiManager 7.2.1 supports the following versions of FortiADC:

- 7.0.0 and later
- 6.2.0 and later
- 6.1.0 and later

FortiAnalyzer

FortiManager 7.2.1 supports the following versions of FortiAnalyzer:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiAuthenticator

FortiManager 7.2.1 supports the following versions of FortiAuthenticator:

- 6.4.0 and later
- 6.3.0 and later
- 6.2.0 and later

FortiCache

FortiManager 7.2.1 supports the following versions of FortiCache:

- 4.2.0 and later
- 4.1.0 and later
- 4.0.0 and later

FortiClient

FortiManager 7.2.1 supports the following versions of FortiClient:

- 7.0.0 and later
- 6.4.0 and later
- 6.2.1 and later

FortiDDoS

FortiManager 7.2.1 supports the following versions of FortiDDoS:

- 6.3.0 and later
- 6.2.0 and later
- 6.1.0 and later

Limited support. For more information, see Feature support on page 24.

FortiDeceptor

FortiManager 7.2.1 supports the following versions of FortiDeceptor:

- 4.2.0 and later
- 4.1.0 and later
- 4.0.0 and later

FortiFirewall and FortiFirewallCarrier

FortiManager 7.2.1 supports the following versions of FortiFirewall and FortiFirewallCarrier:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiMail

FortiManager 7.2.1 supports the following versions of FortiMail:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiProxy

FortiManager 7.2.1 supports configuration management for the following versions of FortiProxy:

- 7.0.5

Configuration management support is identified as *Management Features* in these release notes. See Feature support on page 24.

FortiManager 7.2.1 supports logs from the following versions of FortiProxy:

- 7.0.0 to 7.0.5
- 2.0.0 to 2.0.5
- 1.2.0 to 1.2.13
- 1.1.0 to 1.1.6
- 1.0.0 to 1.0.7

FortiSandbox

FortiManager 7.2.1 supports the following versions of FortiSandbox:

- 4.2.0 and later
- 4.0.0 and 4.0.1
- 3.2.0 and later

FortiSOAR

FortiManager 7.2.1 supports the following versions of FortiSOAR:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiSwitch ATCA

FortiManager 7.2.1 supports the following versions of FortiSwitch ATCA:

- 5.2.0 and later
- 5.0.0 and later
- 4.3.0 and later

FortiTester

FortiManager 7.2.1 supports the following versions of FortiTester:

- 7.0.0 and later
- 4.2.0 and later
- 4.1.0 and later

FortiWeb

FortiManager 7.2.1 supports the following versions of FortiWeb:

- 7.0.0 and later
- 6.4.0 and later
- 6.3.0 and later

Virtualization

FortiManager 7.2.1 supports the following virtualization software:

- Amazon Web Service AMI, Amazon EC2, Amazon EBS
- Citrix XenServer 7.2
- Google Cloud Platform
- Linux KVM Redhat 7.1
- Microsoft Azure
- Microsoft Hyper-V Server 2012, 2016, and 2019
- Nutanix AHV (AOS 5.10.5)
- OpenSource XenServer 4.2.5
- Oracle Private Cloud
- VMware ESXi versions 5.0, 5.5, 6.0, 6.5 , 6.7, and 7.0

Feature support

The following table lists FortiManager feature support for managed platforms.

Platform	Management Features	FortiGuard Update Services	VM License Activation	Reports	Logging
FortiGate	✓	✓	✓	✓	✓
FortiCarrier	✓	✓	✓	✓	✓
FortiADC		✓	✓		
FortiAnalyzer			✓	✓	✓

Platform	Management Features	FortiGuard Update Services	VM License Activation	Reports	Logging
FortiAuthenticator					✓
FortiCache			✓	✓	✓
FortiClient		✓		✓	✓
FortiDDoS			✓	✓	✓
FortiDeceptor		✓			
FortiFirewall	✓				✓
FortiFirewall Carrier	✓				✓
FortiMail		✓	✓	✓	✓
FortiProxy	✓	✓	✓	✓	✓
FortiSandbox		✓	✓	✓	✓
FortiSOAR		✓	✓		
FortiSwitch ATCA	✓				
FortiTester		✓			
FortiWeb		✓	✓	✓	✓
Syslog					✓

Language support

The following table lists FortiManager language support information.

Language	GUI	Reports
English	✓	✓
Chinese (Simplified)	✓	✓
Chinese (Traditional)	✓	✓
French	✓	✓
Japanese	✓	✓
Korean	✓	✓
Portuguese		✓
Spanish		✓

To change the FortiManager language setting, go to *System Settings* > *Admin* > *Admin Settings*, in *Administrative Settings* > *Language* select the desired language on the drop-down menu. The default value is *Auto Detect*.

Russian, Hebrew, and Hungarian are not included in the default report languages. You can create your own language translation files for these languages by exporting a predefined language from FortiManager, modifying the text to a different language, saving the file as a different language name, and then importing the file into FortiManager. For more information, see the *FortiManager Administration Guide.*

Supported models

The following tables list which FortiGate, FortiCarrier, FortiDDoS, FortiAnalyzer, FortiMail, FortiSandbox, FortiSwitch ATCA, FortiWeb, FortiCache, FortiProxy, and FortiAuthenticator models and firmware versions that can be managed by a FortiManager or send logs to a FortiManager running version 7.2.1.

Software license activated LENC devices are supported, if their platforms are in the supported models list. For example, support of FG-3200D indicates support of FG-3200D-LENC.

This section contains the following topics:

FortiGate models

The following FortiGate models are released with FortiOS firmware. For information about supported FortiGate models on special branch releases of FortiOS firmware, see FortiGate special branch models on page 29.

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-DSL, FortiGate-60E-DSLJ, FortiGate-60E-POE, FortiGate-60F, FortiGate-61E, FortiGate-61F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-80F-POE, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-81F-POE, FortiGate-90E, FortiGate-91E, FortiGate-100E, FortiGate-100EF, FortiGate-100F, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-200F, FortiGate-201E, FortiGate-201F, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D, FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1500D, FortiGate-1500DT, FortiGate-1800F, FortiGate-1801F, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-2600F, FortiGate-2601F, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3500F, FortiGate-3501F, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F **FortiGate 5000 Series:** FortiGate-5001E, FortiGate-5001E1 **FortiGate DC:** FortiGate-401E-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3960E-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC **FortiWiFi:** FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE **FortiGate VM:** FortiGate-ARM64-AWS, FortiGate-ARM64-KVM, FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-AWS, FortiGate-VM64-Azure, FortiGate-VM64-GCP, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager **FortiOS-VM:** FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen **FortiGate Rugged:** FGR-60F, FGR-60F-3G4G	7.2

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-DSL, FortiGate-60E-DSLJ, FortiGate-60E-POE, FortiGate-60F, FortiGate-61E, FortiGate-61F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-80F-POE, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-81F-POE, FortiGate-90E, FortiGate-91E, FortiGate-100E, FortiGate-100EF, FortiGate-100F, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-200F, FortiGate-201E, FortiGate-201F, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D, FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-1800F, FortiGate-1801F, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-2600F, FortiGate-2601F, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3500F, FortiGate-3501F, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3810D, FortiGate-3815D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F, **FortiGate 5000 Series:** FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1 **FortiGate DC:** FortiGate-401E-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3810D-DC, FortiGate-3815D-DC, FortiGate-3960E-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC **FortiWiFi:** FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE **FortiGate VM:** FortiGate-ARM64-KVM, FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-AWS, FortiGate-VM64-Azure, FortiGate-VM64-GCP, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager **FortiOS-VM:** FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen **FortiGate Rugged:** FGR-60F, FGR-60F-3G4G	7.0

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-DSL, FortiGate-60E-DSLJ, FortiGate-60E-POE, FortiGate-60F, FortiGate-61E, FortiGate-61F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-80F-POE, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-81F-POE, FortiGate-90E, FortiGate-91E, FortiGate-100D, FortiGate-100E, FortiGate-100EF, FortiGate-100F, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-200F, FortiGate-201E, FortiGate-201F, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D, FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-1800F, FortiGate-1801F, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-2600F, FortiGate-2601F, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3810D, FortiGate-3815D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F, **FortiGate 5000 Series:** FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1 **FortiGate DC:** FortiGate-401E-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3810D-DC, FortiGate-3815D-DC, FortiGate-3960E-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC **FortiGate Hardware Low Encryption:** FortiGate-100D-LENC **FortiWiFi:** FWF-40F, FWF-40F-3G4G, FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE **FortiGate VM:** FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-ALIONDEMAND, FortiGate-VM64-AWS, FortiGate-VM64-AZUREONDEMAND, FortiGate-VM64-Azure, FortiGate-VM64-GCP, VM64-GCPONDEMAND, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager **FortiOS-VM:** FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen **FortiGate Rugged:** FGR-60F, FGR-60F-3G4G	6.4

FortiGate special branch models

The following FortiGate models are released on special branches of FortiOS. FortiManager version 7.2.1 supports these models on the identified FortiOS version and build number.

For information about supported FortiGate models released with FortiOS firmware, see FortiGate models on page 26.

FortiOS 7.0

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-70F, FortiGate-71F	7.0.5	4530
FortiGate-3700F, FortiGate-3701F	7.0.6	6118
FortiGate-3000F	7.0.5	4451
FortiGate-3001F	7.0.5	4436

FortiOS 6.4

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-400F, FortiGate-401F	6.4.8	5206
FortiGate-600F	6.4.8	5306
FortiGate-601F	6.4.8	5301
FortiGate-3500F	6.4.6	5886
FortiGate-3501F	6.4.6	6132
FortiGate-6000F, FortiGate-6300F, FortiGate-6300F-DC, FortiGate-6301F, FortiGate-6301F-DC, FortiGate-6500F, FortiGate-6500F-DC, FortiGate-6501F, FortiGate-6501F-DC	6.4.8	1823
FortiGate-7000E, FortiGate-7030E, FortiGate-7040E, FortiGate-7060E, FortiGate-7060E-8-DC FortiGate-7000F, FortiGate-7121F, FortiGate-7121F-2, FortiGate-7121F-2-DC, FortiGate-7121F-DC	6.4.8	1823
FortiWiFi-80F-2R-3G4G-DSL FortiWiFi-81F-2R-3G4G-DSL	6.4.7	5003

FortiOS 6.2

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-80D	6.2.10	5168
FortiGate-200F, FortiGate-201F	6.2.8	7128
FortiGate-1800F, FortiGate-1800F-DC FortiGate-1801F, FortiGate-1801F-DC	6.2.9	7197

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-2600F, FortiGate-2600F-DC FortiGate-2601F, FortiGate-2601F-DC	6.2.9	7197
FortiGate-4200F, FortiGate-4200F-DC FortiGate-4201F, FortiGate-4201F-DC	6.2.9	7197
FortiGate-4400F, FortiGate-4400F-DC FortiGate-4401F, FortiGate-4401F-DC	6.2.9	7197
FortiGate-6000F, FortiGate-6300F, FortiGate-6300F-DC, FortiGate-6301F, FortiGate-6301F-DC, FortiGate-6500F, FortiGate-6500F-DC, FortiGate-6501F, FortiGate-6501F-DC	6.2.10	1211
FortiGate-7000E, FortiGate-7030E, FortiGate-7040E, FortiGate-7060E, FortiGate-7060E-8-DC FortiGate-7000F, FortiGate-7121F, FortiGate-7121F-2, FortiGate-7121F-2-DC, FortiGate-7121F-DC	6.2.10	1211
FortiWiFi-81F-2R-3G4G-DSL	6.2.6	7219

FortiCarrier models

The following FortiCarrier models are released with FortiCarrier firmware.

For information about supported FortiCarrier models on special branch releases of FortiCarrier firmware, see FortiCarrier special branch models on page 32.

Model	Firmware Version
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-4200F, FortiCarrier-4201F, FortiCarrier-4400F, FortiCarrier-4401F, FortiCarrier-5001E, FortiCarrier-5001E1 **FortiCarrier-DC**: FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC, FortiCarrier-4200F-DC, FortiCarrier-4201F-DC, FortiCarrier-4400F-DC, FortiCarrier-4401F-DC **FortiCarrier-VM**: FortiCarrier-ARM64-AWS, FortiCarrier-ARM64-KVM, FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	7.2

Model	Firmware Version
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1 **FortiCarrier-DC**: FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC **FortiCarrier-VM**: FortiCarrier-ARM64-KVM, FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen, FortiCarrier-ARM64-KVM	7.0
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1 **FortiCarrier-DC:** FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC **FortiCarrier-VM:** FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	6.4

FortiCarrier special branch models

The following FortiCarrier models are released on special branches of FortiOS Carrier. FortiManager version 7.2.1 supports these models on the identified FortiOS Carrier version and build number.

For information about supported FortiCarrier models released with FortiOS Carrier firmware, see FortiCarrier models on page 31.

FortiCarrier 7.0

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-3700F FortiCarrier-3701F	7.0.6	6118
FortiCarrier-3000F	7.0.5	4451
FortiCarrier-3001F	7.0.5	4436

FortiCarrier 6.4

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-6000F, FortiCarrier-6300F, FortiCarrier-6300F-DC, FortiCarrier-6301F, FortiCarrier-6301F-DC, FortiCarrier-6500F, FortiCarrier-6500F-DC, FortiCarrier-65001F, FortiCarrier-6501F-DC FortiCarrier-7000E, FortiCarrier-7030E, FortiCarrier-7040E, FortiCarrier-7060E, FortiCarrier-7060E-8-DC FortiCarrier-7000F, FortiCarrier-7121F, FortiCarrier-7121F-2, FortiCarrier-7121F-2-DC, FortiCarrier-7121F-DC	6.4.8	1823

FortiADC models

Model	Firmware Version
FortiADC: FortiADC-100F, FortiADC-120F, FortiADC-200D, FortiADC-200F, FortiADC-220F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1200F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-2200F, FortiADC-4000D, FortiADC-4000F, FortiADC-4200F, FortiADC-5000F **FortiADC VM**: FortiADC-VM	7.0
FortiADC: FortiADC-100F, FortiADC-120F, FortiADC-200D, FortiADC-200F, FortiADC-220F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1200F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-2200F, FortiADC-4000D, FortiADC-4000F, FortiADC-4200F, FortiADC-5000F **FortiADC VM**: FortiADC-VM	6.2
FortiADC: FortiADC-100F, FortiADC-200D, FortiADC-200F, FortiADC-220F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1200F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-2200F, FortiADC-4000D, FortiADC-4000F, FortiADC-4200F, FortiADC-5000F **FortiADC VM**: FortiADC-VM	6.0, 6.1

FortiAnalyzer models

Model	Firmware Version
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-1000F, FortiAnalyzer-2000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3700F, FAZ-3700G.	7.2

Model	Firmware Version
FortiAnalyzer VM: FortiAnalyzer-DOCKER, FortiAnalyzer-VM64, FortiAnalyzer-VM64-ALI, FortiAnalyzer-VM64-AWS,FortiAnalyzer-VM64-AWS-OnDemand, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-IBM, FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-200F, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-1000E, FortiAnalyzer-1000F, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3700F, FortiAnalyzer-3700G, FortiAnalyzer-3900E **FortiAnalyzer VM**: FortiAnalyzer-DOCKER, FortiAnalyzer-VM64, FortiAnalyzer-VM64-AWS, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-IBM, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	7.0
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-200F, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-1000E, FortiAnalyzer-1000F, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3700F, FortiAnalyzer-3700G, FortiAnalyzer-3900E **FortiAnalyzer VM:** FortiAnalyzer-DOCKER, FortiAnalyzer-VM64, FortiAnalyzer-VM64-ALI, FortiAnalyzer-VM64-ALI-OnDemand, FortiAnalyzer-VM64-AWS, FortiAnalyzer-VM64-AWSOnDemand, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-Azure-OnDemand, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-GCP-OnDemand, FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	6.4

FortiAuthenticator models

Model	Firmware Version
FortiAuthenticator: FAC-200D, FAC-200E, FAC-300F, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-2000E, FAC-3000D, FAC-3000E **FortiAuthenticator VM:** FAC-VM	6.2, 6,3, 6.4

FortiCache models

Model	Firmware Version
FortiCache: FCH-400C, FCH-400E, FCH-1000C, FCH-1000D, FCH-3000C, FCH-3000D, FCH-3000E, FCH-3900E **FortiCache VM:** FCH-KVM, FCH-VM64	4.1, 4.2
FortiCache: FCH-400C, FCH-400E, FCH-1000C, FCH-1000D, FCH-3000C, FCH-3000D, FCH-3900E **FortiCache VM:** FCH-VM64	4.0

FortiDDoS models

Model	Firmware Version
FortiDDoS: FortiDDoS-2000F	6.3
FortiDDoS: FortiDDoS-200F, FortiDDoS-1500F, **FortiDDoS VM**: FortiDDoS-VM	6.1, 6.2, 6.3

FortiDeceptor models

Model	Firmware Version
FortiDeceptor: FDC-1000F, FDC-1000G **FortiDeceptor Rugged**: FDCR-100G **FortiDeceptor VM**: FDC-VM	4.2
FortiDeceptor: FDC-1000F, FDC-1000G **FortiDeceptor Rugged**: FDCR-100G **FortiDeceptor VM**: FDC-VM	4.1
FortiDeceptor: FDC-1000F, FDC-1000G **FortiDeceptor Rugged**: FDCR-100G **FortiDeceptor VM**: FDC-VM	4.0

FortiFirewall models

Some of the following FortiFirewall models are released on special branches of FortiFirewall firmware. FortiManager version 7.2.1 supports these models on the identified FortiFirewall firmware version and build number.

Model	Firmware Version	Firmware Build
FortiFirewall: FortiFirewall-3980E **FortiFirewall DC**: FortiFirewall-3980E-DC	6.2	1262
FortiFirewall: FortiFirewall-4200F	6.2.7	5141
FortiFirewall: FortiFirewall-4400F	6.2.7	5148

FortiFirewallCarrier models

The following FortiFirewallCarrier models are released on special branches of FortiFirewallCarrier firmware. FortiManager version 7.2.1 supports these models on the identified FortiFirewallCarrier firmware version and build number.

Model	Firmware Version	Firmware Build
FortiFirewallCarrier: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.2.7	5148

FortiMail models

Model	Firmware Version
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-2000F, FE-3000F	7.2
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-2000F, FE-3000D, FE-3000E, FE-3000F, FE-3200E **FortiMail VM:** FML-VM	7.0
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-3000D, FE-3000E, FE-3200E **FortiMail VM:** FML-VM	6.4

FortiProxy models

Model	Firmware Version
FortiProxy: FPX-400E, FPX-2000E, FPX-4000E **FortiProxy VM:** FortiProxy-AWS, FortiProxy-Azure, FortiProxy-GCP, FortiProxy-HyperV, FortiProxy-KVM, FortiProxy-VM64	7.0
FortiProxy: FPX-400E, FPX-2000E, FPX-4000E **FortiProxy VM:** FortiProxy-KVM, FortiProxy-VM64	1.2, 2.0

FortiSandbox models

Model	Firmware Version
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3000F, FSA-3500D **FortiSandbox DC:** FSA-1000F-DC **FortiSandbox-VM:** FortiSandbox-AWS, FortiSandbox-Cloud, FSA-VM	4.2
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3000F, FSA-3500D **FortiSandbox DC:** FSA-1000F-DC **FortiSandbox-VM:** FortiSandbox-AWS, FortiSandbox-Cloud, FSA-VM	4.0

Model	Firmware Version
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox DC:** FSA-1000F-DC **FortiSandbox-VM:** FortiSandbox-AWS, FSA-VM	3.2

FortiSOAR models

Model	Firmware Version
FortiSOAR VM: FortiSOAR-VM	6.4, 7.0, 7.2

FortiSwitch ATCA models

Model	Firmware Version
FortiController: FTCL-5103B, FTCL-5903C, FTCL-5913C	5.2
FortiSwitch-ATCA: FS-5003A, FS-5003B **FortiController:** FTCL-5103B	5.0
FortiSwitch-ATCA: FS-5003A, FS-5003B	4.3

FortiTester models

Model	Firmware Version
FortiTester: FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2000F, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F **FortiTester VM:** FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	7.0
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F **FortiTester VM:** FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	4.2
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F	4.1

Model	Firmware Version
FortiTester VM: FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	

FortiWeb models

Model	Firmware Version
FortiWeb: FortiWeb-100D, FortiWeb-100E, FortiWeb-400C, FortiWeb-400D, FortiWeb-400E, FortiWeb-600D, FortiWeb-600E, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-2000E, FortiWeb-2000F, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3000F, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E, FortiWeb-4000F **FortiWeb VM:** FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-Docker, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XENServer	6.4, 7,0
FortiWeb: FortiWeb-100D, FortiWeb-100E, FortiWeb-400C, FortiWeb-400D, FortiWeb-400E, FortiWeb-600D, FortiWeb-600E, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-2000E, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E **FortiWeb VM:** FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-Docker, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XENServer	6.3

Compatibility with FortiOS Versions

This section highlights compatibility issues that administrators should be aware of in FortiManager 7.2.1.

FortiManager 7.2.1 and FortiOS 7.0.8 compatibility issues

This section identifies interoperability issues that have been identified with FortiManager 7.2.1 and FortiOS 7.0.8 in mantis 841187. FortiOS 7.0.8 includes syntax changes not supported by FortiManager 7.2.1.

- `system ddns ddns-key` changed from `user` to `passwd_aes256`
- `system dhcp server ddns-key` changed from `user` to `passwd_aes256`
- `system mobile-tunnel n-mhae-key` changed from `user` to `passwd_aes256`

The following default values changed:

- `router bgp neighbor allowas-in` default value changed from `0` to `3`
- `router bgp neighbor allowas-in6` default value changed from `0` to `3`
- `router bgp neighbor-group allowas-in` default value changed from `0` to `3`
- `router bgp neighbor-group allowas-in6` default value changed from `0` to `3`
- `system external-resource user-agent` default value changed from `curl/7.58.0` to not specified
- `system ftm-push server-cert` default value changed from `self-sign` to `Fortinet_Factory`
- `system npu default-qos-type` default value changed from `policing` to `shaping`
- `system npu policy-offload-level` default value changed from `full-offload` to `disable`

The following objects were added:

```
(attr) antivirus profile cifs fortindr
(attr) antivirus profile fortindr-error-action
(attr) antivirus profile fortindr-timeout-action
(attr) antivirus profile ftp fortindr
(attr) antivirus profile http fortindr
(attr) antivirus profile http unknown-content-encoding
(attr) antivirus profile imap fortindr
(attr) antivirus profile nntp fortindr
(attr) antivirus profile pop3 fortindr
(attr) antivirus profile smtp fortindr
(attr) antivirus profile ssh fortindr
(attr) endpoint-control fctems dirty-reason
(attr) endpoint-control fctems ems-id
(attr) endpoint-control fctems out-of-sync-threshold
(attr) endpoint-control fctems serial-number
(attr) endpoint-control fctems status
(attr) firewall access-proxy-virtual-host replacemsg-group
(attr) firewall ippool subnet-broadcast-in-ippool
(attr) firewall profile-protocol-options ftp explicit-ftp-tls
(attr) firewall vip6 ndp-reply
(attr) log threat-weight malware fortindr
(attr) switch-controller igmp-snooping query-interval
```

```
    (attr) system external-resource server-identity-check
    (node) system fortindr
    (attr) system global ip-fragment-mem-thresholds
    (attr) system sdn-connector external-account-list external-id
    (attr) system settings nat46-force-ipv4-packet-forwarding
    (attr) system settings nat64-force-ipv6-packet-forwarding
    (attr) vpn ipsec phase1 fgsp-sync
    (attr) vpn ipsec phase1-interface fgsp-sync
    (attr) wireless-controller vap sae-h2e-only
    (attr) wireless-controller vap sae-pk
    (attr) wireless-controller vap sae-private-key
    (attr) wireless-controller vap sticky-client-threshold-6g
```

The following objects were removed:

```
    (attr) antivirus profile cifs fortiai
    (attr) antivirus profile fortiai-error-action
    (attr) antivirus profile fortiai-timeout-action
    (attr) antivirus profile ftp fortiai
    (attr) antivirus profile http fortiai
    (attr) antivirus profile imap fortiai
    (attr) antivirus profile mapi fortiai
    (attr) antivirus profile nntp fortiai
    (attr) antivirus profile pop3 fortiai
    (attr) antivirus profile smtp fortiai
    (attr) antivirus profile ssh fortiai
    (attr) antivirus settings cache-clean-result
    (attr) firewall vip6 arp-reply
    (attr) log threat-weight malware fortiai
    (attr) system automation-trigger ioc-level
    (attr) system cluster-sync ike-heartbeat-interval
    (attr) system cluster-sync ike-monitor
    (attr) system cluster-sync ike-monitor-interval
    (attr) system cluster-sync ike-use-rfc6311
    (node) system fortiai
```

Additional option changes:

```
    extender-controller extender-profile model
        option-list (tag|opt): None -> ["FX04DI", "FX04DN"]
    switch-controller managed-switch ports speed
        option-list (tag|opt): ["10000", "1000fiber", "25000cr4", "25000sr4", "40000",
"5000full"] -> None (102 platforms: excludes 5001E1,5001E)
        option-list (tag|opt): None -> ["10000full", "1000full-fiber", "25000cr", "25000sr",
"40000cr4", "40000full", "40000sr4", "50000cr", "50000sr", "5000auto"] (102 platforms:
excludes 5001E1,5001E)
    wireless-controller setting country
        option-list (tag|opt): None -> ["MN"]
    wireless-controller wtp radio-1 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp radio-2 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp radio-3 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp radio-4 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp-group platform-type
        option-list (tag|opt): None -> ["231FL", "231G", "233G", "431FL", "431G", "432FR",
```

```
"433FL", "433G", "U231G", "U441G"]
    wireless-controller wtp-profile ap-country
        option-list (tag|opt): None -> ["MN"]
    wireless-controller wtp-profile platform type
        option-list (tag|opt): None -> ["231FL", "231G", "233G", "431FL", "431G", "432FR",
"433FL", "433G", "U231G", "U441G"]
    wireless-controller wtp-profile radio-1 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp-profile radio-2 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp-profile radio-3 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
    wireless-controller wtp-profile radio-4 band
        option-list (tag|opt): None -> ["802.11ax-6G"]
```

Resolved Issues

The following issues have been fixed in 7.2.1. To inquire about a particular bug, please contact Customer Service & Support.

AP Manager

Bug ID	Description
697444	SSID with MPSK may not pass verification during an install.
755815	The `local-standalone` and `local-authentication` features are inconsistent with FOS/FGT.
767774	The `power-level` and `power-value` installation failed as FortiManager attempts to change `power-level` and `power-value` under the `wireless-controller settings` at the same time.
794836	Protected Management Frames (PMF) feature always gets disabled when security mode is set to WPA2 (Enterprise or Personal).
810804	FortiManager does not support configuration for wireless-controller nac-profile.

Device Manager

Bug ID	Description
587404	FortiManager sets incorrect `captive-portal-port` value when installing version 6.0 policy package to version 6.2 devices.
676415	SAML account with remote certificate not imported to FortiManager Cloud.
704106	Certificate Enrollment fails using SCEP on Microsoft server with sub-ca certificate chains.
721242	FMG displays error *record internal is reserved* when creating a software switch named *internal*.
739746	When VDOM is enabled, FortiManager shows multiple firmware templates on Device Manager with different statuses.
743112	*Interface Bandwidth* widget on FortiManager under Device Manager does not display any data for FGTs.
746697	Cannot delete the `phase2-interface` within the IPSEC template.
753548	Error message *peer must be set* is displayed when configuring *IPSec Tunnel Templates*.

Bug ID	Description
757045	Installation failed with *invalid ip address* error when configuring multiple IP addresses for system dns-database's forwarder as the meta field.
759264	Applied system template does not apply properly on *Install Wizard* mode after modifying config on device level.
763234	Installation failed due to the syntax difference between FGT and FMG in setting `log-disk-quota` for VDOMs.
764491	Unable to configure more than one IP addresses for `vrdst` under the `interface vrrp` setting.
770600	Comma between IP address and subnet causes problems when saving *Prefix List Rule* under *BGP Templates*.
773147	Installation fails due to the unexpected system interface config changes for settings related to `pvc`.
775552	The *View device revision* under *Revision History* does not display the full and complete device configuration.
777391	Non-root Admins with access to only one ADOMs cannot properly build the HA Clusters in FortiManager.
778131	FMG did not support the per-device mapping for user SAML configurations.
784602	Max values for Link status under the Performance SLA for SDWAN template have been set wrongly.
785373	Configuration for `engine-count` in IPS global cannot be set higher than 8.
787205	Interface member field under the *System Templates* does not display any members.
791117	Unable to create simultaneous static routes with named address objects.
792553	Removing VLANs from zone and adding a new VLAN to the same zone deletes that zone.
793021	Creating the interface type *software switch* throws an error when adding a *VLAN* interface as a member.
793495	Cannot select all objects filtered by the search under Device Manager.
793510	Special characters in meta fields are displayed in HTML numeric code.
793941	Unable to install VPN psk with special characters through CLI template.
795913	*Error Probe Failure* has been observed when adding FortiAnalyzer to FortiManager.
796447	FortiManager shows *CLI Provisioning* templates, even after removing association of provisioning template.
796842	Failed to reload the configuration due to the *datasrc invalid* error message.
796920	The *OPEN* mode is missing from the System Template WiFi SSID.
799259	Duplicate CSF groups for 7.0 FGTs (7.0.2+) due to syntax returning `upstream-ip` instead of `upstream`.

Bug ID	Description
800773	FortiManager doesn't show the filter configuration for syslogd correctly.
801022	Config status gets modified even though the installation preview is empty.
803683	Installation failed due to the `config wireless-controller snmp` settings.
804237	Unable to modify the firmware templates under the *Device & Groups*.
804523	After creating SD-WAN, IPsec, BGP, and CLI templates, the installation failed.
806622	Installation failed after configuring the link-monitor.
807404	Installation failed because of different values for `monitoring npu-hpe` between FortiManager and FGT-4201F.
809793	Unable to create VDOM link with vcluster.
811487	Static Route template does not have option for SD-WAN configurations.
812335	BGP template does not have the option to enable `ebgp-enforce-multihop` feature.
812687	Unable to add FortiGate WiFi-80F-2R to FMG when Trusted Platform Module (TPM) is enabled.
813339	First install after adding a FGT to the FMG failed due to FMG's attempt to install a new SSID passphrase for the virtual access point (VAP).
814190	FMG's export or import template feature is not working properly.
816443	SNMPv3 IPv4 notification host does not exist on the FMG's GUI anymore.
820990	IPsec VPN deployment by using ZTP creates some issues on the FGT routing.
822644	Creating a *New Action* for *Interface* under *Provisioning Templates* > *System Templates* makes FMG's GUI unresponsive.
830105	FMG attempts to install 1.0.0.0 as the `remote-gw` IP address for all the `phase1-interfaces` when two or more IPsec `phase1-interfaces` have same `remote-gw` IP address.

FortiSwitch Manager

Bug ID	Description
772396	*Dynamic Port Policy* feature was not supported under the *FortiSwitch Manager* section of FortiManager.
786283	IP Address Assignment Rules cannot be removed under the VLAN per device mapping.
803175	FortiSwitch template does not enable all the PoE interfaces.
817436	LLDP profile cannot be changed when *Access Mode* is set to *NAC* in FortiSwitch template.

Global ADOM

Bug ID	Description
767325	Failed to assign global ADOM v6.2 policy to local ADOM v6.4 due to policy IPv6 changed duplicate object.
768527	After upgrading the global ADOM, installation failed due to the custom ssl-ssh-profile configuration.
794206	Policy installation fails due to Global Object adding prefix `g-` in threat feed.
811660	Global Database object assignment to ADOMs fails.
815130	Global Policy Assignment in FMG displays the *TCL error - dstintf in policy cannot be empty* error.

Others

Bug ID	Description
575863	Failed to upgrade ADOMs as FortiManager forces users to upgrade unregistered devices first.
671516	FMG/FAZ cannot accept more than 100 concurrent admin sessions (using JSON APIs).
741767	FGT's firmware upgrade API is missed from the documentation.
747648	FMG does not support some of the FEX models and versions under FEX profiles.
759333	After upgrading ADOM 6.2 to 6.4, status of all policy packages changes to *Modified*.
764388	FortiManager's GUI does not support *ACI FortiSDNConnector* and *Nuage* configurations.
766485	FortiManager and FortiAnalyzer frequently generate error logs with message "service:geoip, fgd server 'gip.fortinet.net' was unreachable.".
781831	FortiManager should be able to retrieve EMS tags using hostname of FortiClient EMS, if it can resolve the hostname.
782139	FortiManager GUI does not display any of the proxy settings and webcache for FortProxy devices.
783226	*Fabric View* may keep loading.
784034	HA Configuration in Zero-touch provisioning (ZTP) does not synchronize to the secondary FortiGate.
784037	FortiManager offers low encryption cipher suite in TLS 1.2.
786281	During the installation, FortiManager displays *Policy Consistency Check* failure without any clear reason.

Bug ID	Description
786786	New API deployment on FortiManager to support the NSXT API integration does not send any notification from the NSXTService Manager to FortiManager.
792296	ADOM upgrade fails due to the virtual wire pair policy.
792887	Verification fail for default dnsfilter profile due to wrongly installed `set category 0`.
794256	Unable to export update manager log files for the `sftp fdssvrd`.
794304	*Interface Bandwidth* widget is displayed in ADOM 6.2 in FortiManager version 6.4.
795111	Unable to add or modify a FPX *Explicit Proxy*' policy from a FortiProxy ADOM in FortiManager.
797165	FortiManager has some unsupported commands for the FortiToken user definition.
798220	FortiExtender status is always offline.
804244	ADOMs created by XML API cannot be locked or unlocked.
805226	ADOM upgrade uses too much memory, and this makes the upgrade process too slow.
806109	After ADOM upgrade, `log-all` is disabled for all protocols under *Email Filter* profile.
811114	On the FortiProxy ADOM, interface for configuring the `web-proxy explicit-proxy` cannot be selected from the dropdown menu list.
813443	FortiManager does not support the FGT-GCP different IP addresses on interfaces and different source DNS IP addresses.
815875	After upgrading FortiManager, device-level status has been modified and *Install preview* shows that pdf-report and FortiView features will be enabled on the FGTs, even if these are already enabled on the FGTs.
816444	Extender manager doesn't display RSSI/RSRP/RSRQ/SINR info.
816834	FMG does not support FortiWeb and activate its license.
817667	FMG cannot upgrade the ADOM to v7.0 due to several cdb crashes during the upgrade.
819495	FortiManager JSON API `set` and `update` work similarly for template and policy package `scope member`.
820656	FGT 7.2.1 failed to fetch the FortiGuard rating from FMG without raw database flags.
820862	Extenders are not displayed on FMG.
822263	*FortiGuard* > *Service Status* does not correctly display the secondary service status of the FGT's cluster.
823111	After upgrading to 7.0.4, FMG removes the `dev-obj` data upon rebooting.
823278	Unable to manually import Query Category FortiGuard package.
823294	SSH connection between FGT and FAZ/FMG v7.0.4/7.2.1 or later fails due to `server_host_key_algorithms` mismatch.

Bug ID	Description
825052	Not able to add the FortiProxy to the FortiProxy ADOM.
826718	Failed to delete the hanging task from task monitor.
828808	EMS Connector unable to connect to FortiClient EMS Cloud.

Policy and Objects

Bug ID	Description
620680	FMG does not support the geographic fields data for firewall internet-service objects.
705302	Remote VPN Certificate installation failed, and certificate disappeared from FortiManager; however, on the FortiGate the certificate installed successfully.
706809	Policy Check export does not have the last hit-count details anymore.
714375	No warning messages when assigning a normalized interface that is already in use.
721253	FortiManager may not import all the roles and address groups from ClearPass.
725132	When modifying IP address of Default VPN Interface of spoke in Device Manager, hub remote gateway should be modified to reflect that change.
725427	Policy package install skips the policy where destination interface is set as SD-WAN zone and policy is IPsec policy.
731037	There may be *File Filter* file type mismatch between FortiGate and FortiManager.
737424	Policy package import fails due to the *Device mapping::"query failed."* error.
751767	Export to Excel when filters are applied for a policy package does not work.
758680	Unable to complete the Cisco pxGrid fabric connector's configuration on FortiManager.
760918	Unable to change the action field for the default IPS profile and their clones.
765154	Installation fails when trying to disable the *safe search* on existing DNS filter from FortiManager.
767255	FortiManager fails to install the custom signature because it is too long.
773333	The configurations for two-factor-authentication and two-factor-notification should not lead to installation failure.
773403	FortiManager may now differentiate between the ISDB objects *Predefined Internet Services* and *IP Reputation Database*.
775128	Unable to create more than 20 SAML users in policy package object.
777017	FortiManager purges the `arrp-profile` when installing the v6.2 policy packages to v6.4 FGTs.

Bug ID	Description
778171	After the upgrade, FortiManager is changing the *config antivirus quarantine* setting, causing the installation to fail.
779965	Users may be unable to export firewall Header and Footer policies to Excel.
791357	Installation failed when using `custom-deep-inspection`.
792980	Installation fails when trying to install SAML user configuration.
796505	Modifying the *Sections* under *Policy & Objects* leads to some unexpected changes or behavior.
796512	Wrong direction definition has been displayed for `Tor-Relay.Node` ISDB object.
798094	Re-assignment of tokens in FMG policy and objects, deletes and re-adds the firewall policies that are used those objects.
798955	Traffic shaping policy changes do not trigger any changes or updates on the policy packages status.
798958	Policy Consistency Check fails due to the firewall service's name.
799538	The export policy feature displays limited numbers of the group objects.
801876	Installation failed due to "Copy global shared objects" failure.
802072	"Auto-asic-offload" cannot be disabled for the first time in the policy.
802934	FortiManager'sPolicy Package Diff displays policy objects change even though there is not any changes.
805178	Installation failed due to the unnecessary setting changes of logtraffic feature in proxy policy.
805211	Installation failed due to the wrong fsw vlan type for the default nac and nac_segment vlans.
805642	New policies created in policy package do not inherit the `global-label` section.
805649	Any modification to the *peer group* object within the *VPN Manager* pane, changes the policy status to *Modified* for all devices, even though spoke devices have different policy packages than hub devices.
805966	Verification fails due to the "resource-limits.proxy".
809276	Cloning administrators doesn't copy the specified ADOMs for the cloned administrator and wrongly displays *All ADOMs*.
809888	*Replacement Message Group* under *Security profiles* gets removed by FMG during the installation.
811503	Installation failure due to the extender-controller `error 33 - duplicate`.
811715	FSSO dynamic addresses were visible on two address groups.
813237	View Mode feature does not work properly when workspace mode is enabled on FMG.
814090	*Export to Excel* does not work if the policy package has policies other than default *Implicit Deny*.

Bug ID	Description
814468	FMG purges `gcp-project-list` and unsets several values from GCP `sdn-connector`.
815812	Installation failed because FortiManager tried to remove the credentials for Amazon Web Services (AWS) type of SDN Connector and enabled the `use-metadata-iam` feature.
816347	Objects field search under the *Add Object(s)* feature does not properly locate any firewall object addresses for source and destination.
819665	*Installation Preview* does not display the *DNS-Filter* configuration changes.
820939	*Firewall Users* does not populate the user authenticated through explicit proxy authentication method.
828492	Policy installation fails when using `sdn-addr-type all`.

Revision History

Bug ID	Description
496870	Fabric SDN Connector is installed on FortiGate, even when not in use.
691240	FortiManager should not unset the value `forward-error-correction` with certain FortiGate platforms.

Script

Bug ID	Description
793407	Installation fails if one of the BGP network prefix entries is a `supernet`.
800149	FortiManager reorders the <ID>s in ascending order for BGP and static settings.

Services

Bug ID	Description
704584	FAP firmware may not be listed and cannot be imported.
752849	FortiManager doesn't have the proper version string of FGT's IPGeo Info.
796345	FortiManager does not recognize the entitlement file for some FGTs.
798979	FortiManager cannot download the latest IPS DB.
808121	FortiManager ignores `add_no_service` setting for the *Unauthorized Devices*.

System Settings

Bug ID	Description
687223	Users may be unable to upgrade ADOM because of `profile-protocol-options`.
753690	SNMPv3 security option configuration has discrepancy between GUI and CLI.
780245	Install Wizard shows all devices are selected, even though *Default Device Selection for Install* is set to *Deselect All*.
794461	In Workflow mode, admins are not able to approve or reject sessions by emails.
795655	FortiManager loads the *Administrator* list under *System Setting* very slowly.
796058	Search box in the *Edit Meta Fields* page under *System Settings* does not work.
799519	If Management Extension Applications (MEA) are enabled, all system settings may be lost after upgrading FortiManager.
799619	When *Advanced ADOM Mode* is enabled, FortiManager under the *Device Inventory* displays all devices from all VDOMs.
803200	FortiManager does not synchronize with NTP server.
807788	Unable to disable the trusted hosts from the GUI.
807983	FortiManager doesn't display *NTP daemon change time* event log when it synchronizes with the NTP server at booting.
811633	Restricted Administrators using the API requests have full read-write access.
817244	Sorting function feature does not work properly based on the *Device* column in the *Meta Fields* under *System Settings*.
818969	Unable to poll SNMP with SNMP engine ID.
819383	FortiManager disk usage rises to 100% when `traffic-shaping-history` enabled.
821221	Enabling the debug by remote users with *Super_User* admin profiles disconnects them from the FMG's GUI and CLI.
827854	Installation target disappears in workflow mode if session is approved through email.

VPN Manager

Bug ID	Description
615890	IPsec VPN *authusergrp* option *Inherit from Policy* is missing when setting *xauthtype* as *auto server*.
794168	Installation becomes very slow when FortiManager acts as CA server.
796104	FortiManager deletes and re-creates VPN routes with different IDs on every install.

Bug ID	Description
807063	Unable to delete any of the new *Authentication* or *Portal Mapping* entries under *SSL VPN Settings*.
810027	FortiManager spoke IP setting for VPN configuration sets properly, but the policy package does not change on the hub phase1.

Known Issues

The following issues have been identified in 7.2.1. To inquire about a particular bug or to report a bug, please contact Customer Service & Support.

AP Manager

Bug ID	Description
708100	*AP Manager* cannot show *Channels* when 160 MHz channel width is set.

Device Manager

Bug ID	Description
660491	Device Manager system interface should not allow duplicate secondary IP address.
721730	Physical/logical topology under *Fabric View* loads indefinitely.
764369	FortiManager tries to install Security Fabric trusted list to all downstream FortiGatetes when a new one is added.
820506	FortiGate BGP neighbor password field shows long, random string when BGP neighbor config is edited.
849507	IPSec Template clone does not preserve phase 2 dhgrp setting.

Others

Bug ID	Description
729175	FortiManager should highlight device consisting of specific IP address under *Fabric View*.
747716	JSON API does not return gateway for IPsec route.

Policy & Objects

Bug ID	Description
585177	FortiManager is unable to create VIPv6 virtual server objects.
652753	When an obsolete internet service is selected, FortiManager may show entry IDs instead of names.
656991	FortiManager should not allow VIP to be created with same IP for External IP and Mapped IP Address.
688586	Exporting Policy Package to *CSV* format shows *certificate-inspection* in the *"ssl-ssh-profile* column even when the profile is not in use.
719774	IP reputation for the policies are not working without source or destination.
724011	FortiManager needs to support multiple server certificate list in ssl/ssh profile.
727556	FMG policy push caused the `ipsec load-balance` setting to change from `disable` to `enable`.
731935	After policy package is installed to device, the status remains *Modified*.
751168	Installation to FortiGate may fail when installing some specific applications.
774058	Rule list order may not be saved under *File Filter Profile*.
774111	FortiManager does not support dynamic firewall addresses with sub-type Switch Controller NAC Policy TAG.
841187	FOS 7.0.7 syntax support. See FortiManager 7.2.1 and FortiOS 7.0.8 compatibility issues on page 39.

System Settings

Bug ID	Description
839168	FMG-VM with perpetual license uses built-in image with serial number *FAZ-VM0000000001* to manage devices. For a workaround, see Special Notices on page 10.

Appendix A - FortiGuard Distribution Servers (FDS)

In order for FortiManager to request and retrieve updates from FDS, and for FortiManager to serve as an FDS, please configure the necessary settings on all devices between FortiManager and FDS, or between FortiManager and FortiGate devices based on the following items:

- FortiManager accesses FDS for antivirus and attack updates through TCP/SSL port 443.
- If there is a proxy server between FortiManager and FDS, FortiManager uses port 80 to communicate with the proxy server by default, and connects to the proxy server using HTTP protocol.
- If FortiManager manages a FortiGate device located behind a proxy server, the proxy server permits TCP/SSL traffic to pass through port 443.

FortiGuard Center update support

You can configure FortiManager as a local FDS to provide FortiGuard updates to other Fortinet devices and agents on your network. The following table lists which updates are available per platform:

Platform	Update Service	Query Service
FortiGate	✓	✓
FortiADC	✓	
FortiCache	✓	
FortiCarrier	✓	✓
FortiClient	✓	
FortiDeceptor	✓	✓
FortiDDoS	✓	
FortiEMS	✓	
FortiMail	✓	✓
FortiProxy	✓	✓
FortiSandbox	✓	✓
FortiSOAR	✓	
FortiTester	✓	
FortiWeb	✓	

Appendix B - Default and maximum number of ADOMs supported

This section identifies the supported number of ADOMs for FortiManager hardware models and virtual machines.

Hardware models

FortiManager supports a default number of ADOMs based on hardware model.

Some hardware models support an ADOM subscription license. When you purchase an ADOM subscription license, you increase the number of supported ADOMs. For example, you can purchase an ADOM subscription license for the FMG-3000G series, which allows you to use up to a maximum of 8000 ADOMs.

Other hardware models do not support the ADOM subscription license. For hardware models that do not support the ADOM subscription license, the default and maximum number of ADOMs is the same.

FortiManager Platform	Default number of ADOMs	ADOM license support?	Maximum number of ADOMs
200G Series	30		30
300F Series	100		100
400G Series	150		150
1000F Series	1000		1000
2000E Series	1200		1200
3000G Series	4000	✓	8000
3700G Series	10,000	✓	12,000

For FortiManager F series and earlier, the maximum number of ADOMs is equal to the maximum devices/VDOMs as described in the FortiManager Data Sheet.

Virtual Machines

FortiManager VM subscription license includes five (5) ADOMs. Additional ADOMs can be purchased with an ADOM subscription license.

For FortiManager VM perpetual license, the maximum number of ADOMs is equal to the maximum number of Devices/VDOMs listed in the FortiManager Data Sheet.

FortiManager VM subscription and perpetual licenses are stackable.

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